CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 96-100

SITE CLEANUP REQUIREMENTS FOR:

BOHANNA AND PEARCE, INC.
724 EAST GRANTLINE ROAD
TRACY, CA 95376

LINCOLN ALVARADO, A CALIFORNIA LIMITED PARTNERSHIP
c/o CYRUS COLBURN
101 LINCOLN CENTRE DRIVE
FOSTER CITY, CA 94404-1167

AND

PATRICIAN ASSOCIATES, INC.
c/o DARLEEN FRASER
101 LINCOLN CENTRE DRIVE
FOSTER CITY, CA 94404-1167

for the property located at

30460 WHIPPLE ROAD
UNION CITY
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. **Site Location**: The site is located at 30460 Whipple Road, west of Union City Boulevard and northeast of the intersection of Whipple Road and Bettencourt Way, in Union City. The immediate site vicinity is composed of several concrete tilt-up warehouse structures. The site covers an area of 18,350 square feet in an L-shaped configuration within one of the tilt-up building. Surrounding land use consists of light industrial and commercial buildings. Alameda Creek is located approximately 2,000 feet both to the west and to the east of the property. The Alameda Creek Flood Control Channel is located approximately 13,000 feet to the south.

2. **Site History**: The property is jointly owned by Lincoln Alvarado, a California limited partnership, and by Patrician Associates, Inc., a California corporation (collectively referred to as the Owners). Bohanna and Pearce, Inc. (Bohanna) leased the site from the Owners and operated a business fabricating metal fireplace fixtures during the period from 1987 though 1993. Part of the fabricating process involved dipping metal products into an open tank and coating the parts with paint. It was reported that 1,1,1-Trichloroethane (TCA) was used by Bohanna for the purpose of thinning the paint and cleansing/degreasing the metal parts during the manufacturing process. Upon vacating the site in 1993, Bohanna removed the metal dip tank from the building interior and found soil pollution. In subsequent site investigations conducted individually by Bohanna and the Owners, soil and groundwater pollution by TCA around the former tank location and adjacent to the northern perimeter of the building was confirmed.

3. **Named Dischargers**: Unauthorized releases of TCA and other solvents occurred from 1987 through 1992; during this period, Bohanna was reportedly using TCA in its fabrication process on the site. Thus, Bohanna is named as a primary discharger. The Owners are named as the secondary discharger as they have been the property co-owners of the site throughout the period of Bohanna's occupancy.

   The Owners will be responsible for compliance only if the Board or Executive Officer find that Bohanna has failed to comply with the requirements of this Order. If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the State, the Board will consider adding that party's name to this Order.

4. **Regulatory Status**: This site is currently not subject to Board order.

5. **Site Hydrogeology**: The site was formerly a tidal marsh, with numerous meandering sloughs. In general, the site is directly underlain by approximately four feet of silty sandy clay fill and silty sand. Clayey silt and silty clay (bay mud) occur from below the fill to at least a depth of 22 feet below ground surface (bgs). Groundwater at the site has been encountered at a depth of approximately eight feet. Regional groundwater flow direction is to the west.

6. **Remedial Investigation**: In May 1993, prior to installing the first monitoring well MW-1, the dip tank excavation which was about five feet below ground surface (bgs) was further deepened to 13 feet at the northern end by Bohanna for the purpose of delineating the extent of TCA pollution in soil. The excavation was dewatered and a total of 400 gallons of water were pumped into a holding tank and disposed under manifest. TCA concentrations in MW-1, located within the building interior, have consistently been detected on the order of 10 to 23 ppb.

   Analytical results of grab groundwater samples collected at the northern exterior of the building during an additional investigation in mid-1994 indicated levels of TCA as high

as 170,000 ppb in the western excavation and 2,000 ppb in the eastern excavation. These levels of contamination are substantially above drinking water standards, which is 200 ppb. Two monitoring wells were subsequently installed on the northern exterior of the building in November 1994. MW-2 was installed within the western excavation area and MW-3 was installed within the eastern excavation area. Groundwater samples collected from the wells indicated 9,800 ppb and 1,400 ppb TCA in wells MW-2 and MW-3, respectively.

7. **Interim Remedial Measures**: Approximately 250 tons of TCA-impacted soil were excavated from the former interior dip tank location by Bohanna based on its finding of subsurface soil pollution in 1993. Post-cleanup confirmatory soil samples collected from the final excavation pit did not indicate the presence of TCA. In 1994, a further excavation was conducted in two delineated locations (the eastern and western excavations), adjacent to two roll-up loading doors situated along the northern building exterior. This excavation was required by the Owners based on the conclusion of their investigation in this area, which detected the presence of TCA at concentrations as high as 29 mg/kg. The excavated soil was reportedly placed at an on-site location, and biotreatment of the soils was reportedly initiated. On May 23, 1996, the Owners submitted a report documenting the sampling results of the biotreated soil stockpile. Recently, both the Owners and Bohanna have respectively submitted its own version of investigation work plan. Board staff is in the process of reviewing these work plans, and considers that it is in the best interest of all parties to have one consolidated work plan instead of two.

   Further interim remedial measures need to be implemented at this site to reduce the threat to water quality, public health, and the environment posed by the discharge of waste and to provide a technical basis for selecting and designing final remedial measures.

8. **Adjacent Sites**: There are no known sites in the immediate vicinity of this site that can affect or are affected by this contamination.

9. **Basin Plan**: The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

   The potential beneficial uses of groundwater underlying and adjacent to the site include:

   a. Municipal and domestic water supply
   b. Industrial process water supply

c. Industrial service water supply
d. Agricultural water supply
e. Freshwater replenishment to surface waters

The existing and potential beneficial uses of Alameda Creek include:

a. Agricultural supply
b. Groundwater recharge
c. Water contact and non-contact recreation
d. Wildlife habitat
e. Cold freshwater and warm freshwater habitat
f. Fish migration and spawning

10. **Other Board Policies**: Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

11. **State Water Board Policies**: State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives.

State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This Order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

12. **Preliminary Cleanup Goals**: The discharger will need to make assumptions about future cleanup standards for soil and groundwater, in order to determine the necessary extent of remedial investigation, interim remedial actions, and the draft cleanup plan. Pending the establishment of site-specific cleanup standards, the following preliminary cleanup goals should be used for these purposes:

a. Groundwater: Applicable water quality objectives (e.g. maximum contaminant levels, or MCLs) or, in the absence of a chemical-specific objective, risk-based

levels (e.g. drinking water equivalent levels).

b. Soil: 1 mg/kg total volatile organic compounds (VOCs), 10 mg/kg total semi-volatile organic compounds (SVOCs), and background concentrations of metals.

13. **Basis for 13304 Order**: The discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

14. **Cost Recovery**: Pursuant to California Water Code Section 13304, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.

15. **CEQA**: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

16. **Notification**: The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

17. **Public Hearing**: The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will

cause significant adverse migration of wastes or hazardous substances are prohibited.

B. TASKS

1. REMEDIAL INVESTIGATION WORKPLAN

COMPLIANCE DATE: July 31, 1996

Submit a consolidated workplan acceptable to the Executive Officer to define the vertical and lateral extent of soil and groundwater pollution. The workplan should specify investigation methods and includes an implementation schedule.

2. COMPLETION OF REMEDIAL INVESTIGATION

COMPLIANCE DATE: November 15, 1996

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 1 workplan. The technical report should include the results of the investigation through which the vertical and lateral extent of pollution down to concentrations at or below typical cleanup standards for soil and groundwater is defined. Professional interpretation of the investigation results should be included in the report.

3. INTERIM REMEDIAL ACTION WORKPLAN

COMPLIANCE DATE: February 15, 1997

Submit a workplan acceptable to the Executive Officer to evaluate interim remedial action alternatives and to recommend one or more alternatives for implementation. The workplan should specify an implementation schedule. Work may be phased to allow the soil and groundwater remediation to proceed efficiently. If groundwater extraction is selected as an interim remedial action, then one task will be the completion of an NPDES permit application for discharge of extracted, treated groundwater to waters of the State. The application must demonstrate that neither reclamation nor discharge to the sanitary sewer is technically or economically feasible.

4. COMPLETION OF INTERIM REMEDIAL ACTIONS

COMPLIANCE DATE: August 15, 1997

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 3 workplan. For ongoing

actions, such as soil vapor extraction or groundwater extraction, the report should document start-up as opposed to completion. If the approved interim remedial actions for soil and groundwater were implemented separately, each part would have a workplan followed by a technical report. The submittal of the final report for the last part of the approved interim remedial action shall meet this completion date.

5. **PROPOSED FINAL REMEDIAL ACTIONS AND CLEANUP STANDARDS**

COMPLIANCE DATE: December 15, 1997

Submit a technical report acceptable to the Executive Officer containing:

a. Results of the remedial investigation
b. Evaluation of the installed interim remedial actions
c. Feasibility study evaluating alternative final remedial actions
d. Risk assessment for current and post-cleanup exposures
e. Recommended final remedial actions and cleanup standards
f. Implementation tasks and time schedule

Item c should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Items a through c should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code Section 25356.1(c), and State Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

Items a through e should consider the preliminary cleanup goals for soil and groundwater identified in finding 12.

6. **Delayed Compliance**: If the discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.

C. PROVISIONS

1. **No Nuisance**: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code

Section 13050(m).

2. **Good Operation and Maintenance (O&M)**: The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

3. **Cost Recovery**: The discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records**: In accordance with California Water Code Section 13267(c), the discharger shall permit the Board or its authorized representative:

   a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

   b. Access to copy any records required to be kept under the requirements of this Order.

   c. Inspection of any monitoring or remediation facilities installed in response to this Order.

   d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.

5. **Self-Monitoring Program**: The discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

6. **Contractor / Consultant Qualifications**: All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.

7. **Lab Qualifications**: All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality

assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).

8. **Document Distribution**: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

   a. City of Union City
   b. Alameda County Water District

   The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator**: The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.

10. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the discharger shall report such discharge to the Regional Board by calling (510) 286-1255 during regular office hours (Monday through Friday, 8:00 to 5:00).

    A written report shall be filed with the Board within five (5) working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

    This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

11. **Secondarily-Responsible Discharger**: Within 60 days after being notified by the Executive Officer that the other named discharger has failed to comply with this Order, Lincoln Alvarado, and Patrician Associates, Inc., as property co-owners shall then be responsible for complying with this Order.

12. **Periodic SCR Review**: The Board will review this Order periodically and may revise it when necessary. The discharger may request revisions and upon review the Executive Officer may recommend that the Board revise these requirements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San

Francisco Bay Region, on July 17, 1996.

Loretta K. Barsamian
Executive Officer

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FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

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Attachments: Site Map
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

BOHANNA AND PEARCE, INC.
724 EAST GRANTLINE ROAD
TRACY, CA 95376

LINCOLN ALVARADO, A CALIFORNIA LIMITED PARTNERSHIP
c/o CYRUS COLBURN
101 LINCOLN CENTRE DRIVE
FOSTER CITY, CA 94404-1167

AND

PATRICIAN ASSOCIATES, INC.
c/o DARLEEN FRASER
101 LINCOLN CENTRE DRIVE
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for the property located at

30460 WHIPPLE ROAD
UNION CITY
ALAMEDA COUNTY

1. **Authority and Purpose**: The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 96-100.

2. **Monitoring**: The discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
MW-1	Q	8010			
MW-2	Q	8010			
MW-3	Q	8010			

Key: Q = Quarterly 8010 = EPA Method 8010 or equivalent

The discharger shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports**: The discharger shall submit quarterly monitoring reports to the Board no later than 30 days following the end of the quarter (e.g. report for first quarter of the year due April 30). The first quarterly monitoring report shall be due on October 30, 1996. The reports shall include:

   a. Transmittal Letter: The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

   b. Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.

   c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).

   d. Groundwater Extraction: If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the last quarterly report each

year.

e. Status Report: The quarterly report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.

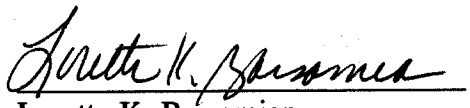
4. **Violation Reports**: If the discharger violates requirements in the Site Cleanup Requirements, then the discharger shall notify the Board office by telephone as soon as practicable once the discharger has knowledge of the violation. Board staff may, depending on violation severity, require the discharger to submit a separate technical report on the violation within five working days of telephone notification.

5. **Other Reports**: The discharger shall notify the Board in writing prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.

6. **Record Keeping**: The discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.

7. **SMP Revisions**: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on July 17, 1996.



Loretta K. Barsamian
Executive Officer